



Project acronym: UAP-ALPINE

Project title: Establishing long-term alpine biodiversity monitoring in the Monts Groulx, Manicouagan-Uapishka Biosphere Reserve, Québec using a global framework

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Discipline: Earth Sciences & Environment: Ecosystems & Biodiversity

Station(s): Uapishka Research Station (Canada)

We undertook vegetation sampling in the alpine ecosystem of the Monts Groulx, Québec, Canada, the largest extent of low-latitude (i.e., south of the continental treeline) arctic-alpine tundra in eastern North America in order to assess alpine vegetation community change over time as a result of climate change, recreational use, and other factors. With support from INTERACT and in partnership with the Uapishka Research Station and the Manicouagan-Uapishka World Biosphere Reserve (RMBMU), we successfully undertook several research projects in June and July 2022, including: 1) We implemented the GLORIA (Global Observation Research Initiative in Alpine Environments) protocol to establish a baseline for long-term assessment of vegetation changes and inform local management of the alpine zone. GLORIA is a global network of standardized, long-term vegetation monitoring sites in alpine environments and because the GLORIA protocol is utilized at other INTERACT stations globally, it offers the opportunity to generate comparative studies across the entire network. Now that the plots are formally established, biologists and staff at RMBMU intend to continue monitoring these plots every 5–10 years in the future, in accordance with the GLORIA protocol. 2) As part of the 2022 sampling, we resampled 4, 100 m transects on three additional summits that were sampled by this research team in 2009–2011 and will conduct a comparative analysis to assess changes that have occurred over the last decade. 3) We established example GLORIA plots on an accessible mountain peak for educational purposes for students and visitors. 4) We assessed the presence of exotic and invasive species by surveying along commonly used trails, around structures in the alpine zone, and near visitor parking lots.